**Unit 10 Map (Classical Genetics)**

Ms. Ottolini, AP Biology

|  |  |  |  |
| --- | --- | --- | --- |
| **Topic** | **Learning Target** | **DBA Score** (%) | **Test Score** (%) |
| 1. The Basics of Mendelian Genetics | A. You will be able to use basic genetics vocabulary and analyze simple monohybrid crosses (Punnett squares). |  |  |
| B. You will be able to analyze monohybrid crosses involving incomplete dominance and codominance. |
| C. You will be able to analyze monohybrid crosses involving sex linkage. |
| D. You will be able to analyze dihybrid crosses. |
| 2. Human Genetics | E. You will be able to analyze Punnett squares involving multiple alleles (ex: blood types). |  |  |
| F. You will be able to describe patterns of non-Mendelian inheritance (ex: polygenic inheritance, pleiotropy, extranuclear DNA) |
| G. You will be able to evaluate the role of genes and the environment on phenotype. |
| H. You will be able to create and analyze pedigrees showing the inheritance of traits across several generations. |
| 3. Gene Linkage | I. You will be able to determine if two genes are linked (found on the same chromosome) based on Punnett square results and recombination frequencies. |  |  |
| J. You will be able to construct a linkage map showing the locations of genes on a chromosome based on recombination frequencies (the frequency of two genes ending up on different chromosomes due to crossing over). |